

BIODIVERSITY FOR THE NATIONAL PARKS

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OBSERVATIONS

While reviewing the species data frame, I noticed many things about the state of the wildlife within the National Parks system.

An encouraging point about of parks system is the amount of species that do not need our intervention compared to those who are need of more care and oversight.

A few points of concern was not having the information if any species had gone extinct in recent history that resided in the parks. As well as not having the levels in order so that I could do a more in-depth analysis. I was troubled by the relative number of species of concern compared to compared to the endangered and threatened categories



SIGNIFICANT CALCULATIONS

One of the most important calculations that took place was comparing the different category of species and the percent that were protected. The category with the greatest number of protected were the bird and the least were a tie of reptiles and non-vascular plants.

The percent protected within the parks was a different calculation due to the number of each species in the national park system. The two categories with the highest percentage protected was mammals with 17% and birds with 15% protected.



RECOMMENDATIONS

Based on the significant calculations I would suggest that conservationists focus on the two categories with the highest percentage protected within the parks which were mammals and birds. Although each category of species is important to ecosystems; I believe that in some cases where the animal is in the food chain can wreck havoc on their ecosystem if they become endangered or extinct.

There should also be increased vigilance to lower the species of concern number to no intervention so that focus can be placed on the species within the endangered, threatened and in recovery classifications



SAMPLE SIZE DETERMINATION

In order to determine the sample size I used the baseline conversion rate of 15% since that was the percent of sheep who contracted the disease last year.

I determined the minimum detectable effect was 33% by doing the follow formula:

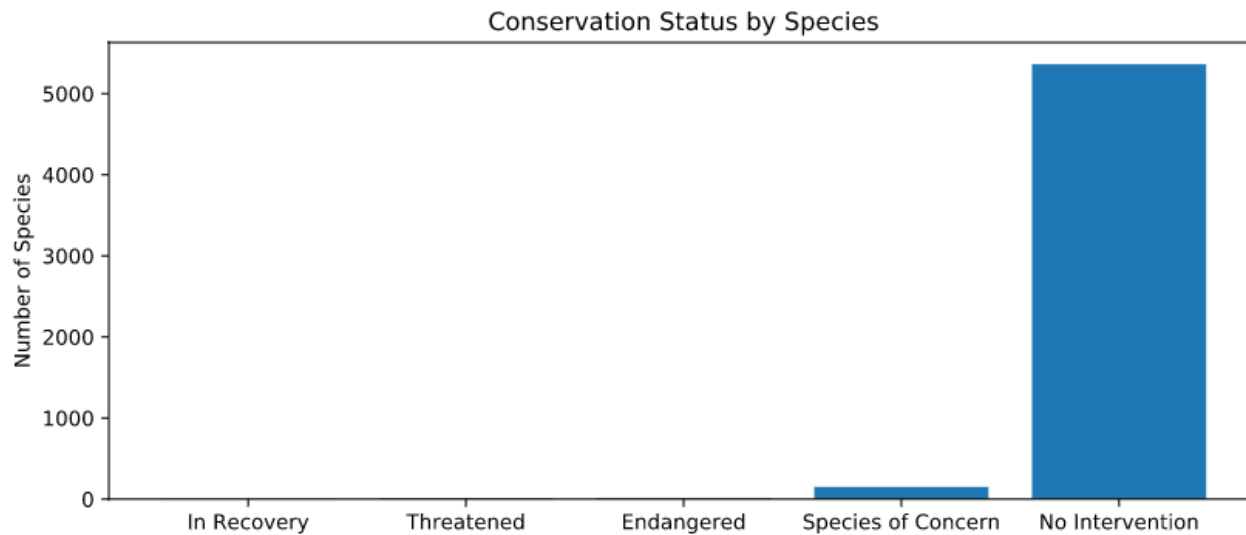
$[100 * (20-15)/15]$ I increased the base line by 5% because we wanted to be able to detect reductions of at least 5 percentage points.

I determined that the sample size would 520 of the sheep and that in Yellowstone the conservationist would have to observe for 1 week while staying in Bryce for 2 weeks.



GRAPH: CONSERVATION STATUS BY SPECIES

	conservation_status	scientific_name
1	In Recovery	4
4	Threatened	10
0	Endangered	15
3	Species of Concern	151
2	No Intervention	5363



GRAPH: OBSERVATIONS OF SHEEP PER WEEK

